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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/501,357	06/09/2006	Brendan McKeown	08830-0286US1	9380

23973 7590 01/04/2011  
DRINKER BIDDLE & REATH  
ATTN: INTELLECTUAL PROPERTY GROUP  
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PHILADELPHIA, PA 19103-6996

EXAMINER
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HIRIYANNA, KELAGINAMANE T

ART UNIT	PAPER NUMBER
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1633

NOTIFICATION DATE	DELIVERY MODE
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01/04/2011

ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

DBRIPDocket@dbr.com  
penelope.mongelluzzo@dbr.com

<b>Office Action Summary</b>	<b>Application No.</b> 10/501,357	<b>Applicant(s)</b> MCKEOWN ET AL.	
	<b>Examiner</b> KELAGINAMANE HIRIYANNA	<b>Art Unit</b> 1633	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 21 October 2010.
- 2a) ☐ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-26, 31-40, 44 and 45 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☐ Claim(s) \_\_\_\_\_ is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☒ Claim(s) 1-26, 31-40, 44 and 45 are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |   |   |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                    | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)         | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date. _____  | 6) <input type="checkbox"/> Other: _____                          |

### **DETAILED ACTION**

Applicant's response filed on 10/21/2010 in response to office letter mailed on 09/28/2010 has been acknowledged. Claims as amended now overcome the rejection on the basis of sequence non-compliance. Applicant's arguments of 09/17/2009 are fully considered while writing this action. However, the now sequence complaint claims (claims 35-40) cannot be grouped with the previously indicated Group III (claims 26 and 44-45) as they involve distinct inventions.

Claims 33, 34, 37, 38 and 40 are amended and made sequence compliant.

Claims 27-30 and 41-43 were previously canceled.

*Claims 1-26, 31-40 and 44-45 are pending and restricted in this office action.*

Applicants are required to follow Amendment Practice under revised 37 CFR §1.121. The fax phone numbers for the organization where this application or proceeding is assigned is 571-273-8300. 37 CFR 1.142(a) provides that restriction is proper at any stage of prosecution upto final action, a second requirement may be made when it becomes proper, even though there was a prior requirement with which applicant complied. *Exparte Benke*, 1904C.D. 63, 108 O.G. 1588 (Comm'r Pat. 1904).

The reissued restriction requirement is as follows. The Applicant may traverse the restriction requirement but must elect a single invention group indicated, without ambiguity, for examination purposes.

### **Election/Restrictions**

Restriction is required under 35 U.S.C. 121 and 372.

This application contains the following inventions or groups of inventions, which are not so linked as to form a single general inventive concept under PCT Rule 13.1. In accordance with 37 CFR 1.499, applicant is required, in reply to this action, to elect a single invention to which the claims must be restricted.

The inventions as claimed are classified into following groups

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- I. Claim 1-25 drawn to a method of producing a soluble bioactive domain of a protein.
- II Claim 31-34 drawn to expression constructs for the production of recombinant fusion polypeptides with sortase gene product as purification tag.
- III. Claims 35-39 drawn to a method for producing a polypeptide and a fusion polypeptide obtained by the same method.
- IV. Claim 40 drawn to a purification tag comprising a sortase gene product.
- V. Claim 26 and 44-45 are drawn to a method for producing a soluble bioactive domain of a protein comprising a solubility enhancing tag comprising a SNUT tag.

The inventions listed as Groups I-V do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, they lack the same or corresponding special technical features for the following reasons: a) they do not possess a corresponding common technical feature and b) a prior art of record exists regarding a feature linking technical claims 1-26, 31-40 and 44-45 i.e., a method of producing a soluble bioactive domain of a protein (For example see Zhang et al., 1998, Protein Expression and Purification 12:159-165, art of record ; Pryor et al., 1997, Protein Expression and Purification 10:309-319, art of record; Hung et al, 1999, PNAS USA 96:124-12429; art of record; Udayar et al, 1998, PNAS USA 98:6056-6061, art of record). The invention as whole thus lacks unity under PCT rule hence a restriction as indicated above is proper. The mode of operation, and the effects evaluated in each of the above invention are distinct and different from the other. Therefore, a search and examination for the patentability of the above inventive groups together would generate an undue search burden on the examiner. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art because of their recognized divergent subject matter, restriction for examination purposes as indicated is proper.

This application contains claims directed to the following patentably distinct species: Should Group I be elected from above, the.

- (a). Applicant is required chose a single species of PCR method among the methods recited in claims 7 and 20 i.e., (i) or (ii) or (iii).

The species are independent or distinct because they employ distinct conditions.

- (b). Applicant is required chose a single species of a solubility enhancing tag among the recited in claim 10 and 23 i.e., a glutathione-S-transferase tag or a dihydrofolate reductase tag or a NusA tag or a SNUT.
- (c). Applicant is required chose a single species of E.coli bacterial strain among the strains recited in claims 13 and 25 i.e. Rosetta (DE3) pLacI or Tuner (DE3) pLacI or Origami BL21 (DE3) pLacI or TOP10F'.

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- (d). Applicant is required chose a single species of protein of interest among the interesting proteins recited in claims 19 i.e., a protein encoded by the *yoitao* gene or the murine MAR1 protein or the human Jak1 protein.

The species in (b), (c) and (d) are independent or distinct because they are structurally distinct.

Applicant is required under 35 U.S.C. 121 to elect a single disclosed species for prosecution on the merits to which the claims shall be restricted if no generic claim is finally held to be allowable.

Applicant is advised that a reply to this requirement must include an identification of the species that is elected consonant with this requirement, and a listing of all claims readable thereon, including any claims subsequently added. An argument that a claim is allowable or that all claims are generic is considered non-responsive unless accompanied by an election.

Upon the allowance of a generic claim, applicant will be entitled to consideration of claims to additional species which depend from or otherwise require all the limitations of an allowable generic claim as provided by 37 CFR 1.141. If claims are added after the election, applicant must indicate which are readable upon the elected species. MPEP § 809.02(a).

Should applicant traverse on the ground that the species are not patentably distinct, applicant should submit evidence or identify such evidence now of record showing the species to be obvious variants or clearly admit on the record that this is the case. In either instance, if the examiner finds one of the inventions unpatentable over the prior art, the evidence or admission may be used in a rejection under 35 U.S.C. 103(a) of the other invention.

Applicant is advised that the response to this requirement to be complete must include an election of the invention to be examined even though the requirement be traversed. Applicant is advised that the reply to this requirement to be complete must include an election of the invention to be examined even though the requirement is traversed (37 CFR 1.143).

Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a petition under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to examiner *Kelaginamane Hiriyanne Ph.D.*, whose telephone number is (571) 272-3307. The examiner can normally be reached Monday through Thursday from 9 AM-7PM. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, *Joseph Woitach Ph.D.*, may be reached at (571) 272-0739. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR)

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system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). When calling please have your application serial number or patent number, the type of document you are having an image problem with, the number of pages and the specific nature of the problem. For all other customer support, please call the USPTO call center (UCC) at (800) 786-9199.

/Robert M Kelly/  
Primary Examiner, Art Unit 1633